

ABSTRACT

A network switching device, and corresponding method and computer program, for transferring data among n channels, the network switching device comprising n receive
5 circuits each adapted to receive frames of the data from a respective one of the n channels, n ingress modules each comprising a frame data memory controller circuit adapted to store the data of each frame in one or more buffers, wherein each of the buffers is adapted to store a plurality of bytes of the data, and a destination resolution circuit adapted to select one or more of the n channels as destination channels for each of the frames; a forwarding module
10 adapted to enqueue each buffer storing the data of the frames to the respective one or more destination channels; n egress modules each adapted to transmit, to a respective one of the n channels, the data in the buffers enqueued to the respective one of the n channels; and n counters each adapted to store a count for a respective one of the n channels, to increment the count when a respective one of the n ingress modules enqueues a buffer to one or more
15 destination channels, and to decrement the count after the data stored in a buffer enqueued from the respective one of the n ingress modules is transmitted to one or more of the n channels to which the buffer was enqueued; wherein each of the n egress modules is further adapted to exercise flow control on a respective one of the n channels when a respective count is greater than a pause threshold.

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